

Conversation with Richard Sullivan about surgery in low- and middle-income countries, January 8, 2014

Participants

- Richard Sullivan, MD, PhD – Professor of Cancer Policy & Global Health at Kings College London, Director of the Kings Institute of Cancer Policy
- Elie Hassenfeld – Co-Founder and Co-Executive Director of GiveWell

Note: This set of notes was compiled by GiveWell and gives an overview of the major points made by Dr. Sullivan.

Summary

GiveWell spoke with Dr. Sullivan as part of its investigation of surgery in developing countries. The conversation covered what surgery charities do and how they are funded, as well as the challenges to increasing the supply of surgeries and the types of opportunities where funding could have an impact.

Surgery Charities

Charities that conduct surgeries in low- and middle-income countries range in size, from an individual surgeon to an institution, and in funding sources, from individual donors to large foundations. Most of the consistent funding for surgical care or research comes from partnerships between universities or hospitals in high-income countries with parallel institutions in low- and middle-income countries. Sometimes, partnerships are between two low- or middle-income countries, which can be beneficial because they often have more similar operations.

Functions of surgery charities:

- Direct delivery of surgical operations - Sometimes provided by visiting surgeons from high-income countries, other times provided by surgeons from the country in which the charity works.
- Providing small-scale support to hospitals - Sometimes individual donors may provide funds to hospitals that allow hospitals to buy equipment necessary for surgeries (e.g., sutures)
- Training and education - Some medical colleges in high-income countries such as the UK will raise funds to train surgeons in emerging economies.
- Surgical research - Philanthropic capital also goes to support research on surgery in low- and middle-income countries. This ranges from small-scale studies to large

trials funded by federal research institutions. Surgical research is generally ad hoc and not sustainably funded, and very little is in the public domain.

The quality of surgery charities is extremely variable.

Increasing the supply of surgeries

Challenges

Increasing the supply of surgeries in low- and middle-income countries is not as simple as donating money to a surgery charity. Surgical care requires human resources, equipment, and a substantial amount of funding to initially install this capacity and maintain it over time even though surgery is still a very cost effective intervention in public health terms.

The human resources needed to provide surgical care are a team of medical professionals with expertise in multiple different areas. At the most basic level, surgery requires a surgeon and an anesthetist (though often a nurse will play the role of the anesthetist). There are many types of procedures and additional requirements depending on the disease. With cancer, for example, there are over 400 types of procedures that vary in complexity. Performing these also requires someone with expertise in pathology, to provide the diagnosis, and imaging technology, so that the surgeon can see what they are operating on. Because of these challenges, throwing a small amount of money towards the problem is unlikely to have an impact.

Compared to delivering surgical care, campaigns against diseases like malaria and tuberculosis are “relatively straightforward,” because the problem is narrowly defined and the treatments are fairly simple. This is partly why philanthropy has not addressed the under-provision of surgery in low- and middle-income countries. There is also immense disagreement on the best way to support the sustainable development of surgical care although this is now being addressed with initiatives from WHO and Lancet Commission on Global Surgery.

Opportunities

Even though surgical provision is complex, there are definitely opportunities for small-scale philanthropists to help address specific needs in specific areas, and for larger-scale funding and institutions to transform surgical capability and capacity more broadly.

Filling resource gaps. There are cases when surgical operations have minor gaps in human resources or materials that can be filled with additional funding, for example, by

employing anesthetists or operating room technicians, or buying a year's supply of sutures. These kinds of expenditures can help an existing surgical operation continue to provide some basic services and are a good fit for small-scale philanthropy.

Training new surgeons and anesthetists . Education and training of surgeons and anesthetists in-country are especially important activities to build capacity and should be emphasized by small-scale philanthropy and charities. These activities will have a much greater impact than only providing surgeries directly.

Supporting research relevant to surgery. Another potentially high-impact use of small-scale philanthropy is funding surgical research. In many places, it is difficult to know what needs to be done, because there is a lack of information about the burden and spectrum of disease and what surgery / outcomes already exist within the system. It is currently very difficult to find funding for surgical research. Middle-income countries are generally in a better position with regards to surgery provision; they understand what their challenges are and generally 'twinning' with institutions in high-income countries on surgical research programs, for example figuring out how to extend surgical care to rural areas or the development and scaling of new technologies, is the preferred way of engagement.

There is also very little information available about the quality of surgical care in many low resource settings, and the impact of this care. This kind of information is useful in assessing the effectiveness of different approaches, so it would be valuable for more research to be conducted and shared publicly.

Transforming provision of surgery. Larger amounts of funding (hundreds of thousands to millions of pounds) have the potential to change the surgical capacity and capability for whole low- or middle-income countries. This is not about performing a single operation, it's a systems change. Navigating these systems is complicated, and is beyond the capability of many funders. However, for those with the finances to provide such funding the effects of supporting surgery are, quite literally, game changing. However, engagement of this type requires sustainability and commitment over a 5-10 years to see a difference.

Transforming the provision of surgery in a country requires:

- Setting up facilities with different specialties that can carry out a range of operations from Level 1 (district level) to more complex procedures e.g. for cancer, cleft palate etc at bigger facilities.
- Engagement with the community to ensure that they take advantage and access surgical care.
- Delivering services affordably. This requires financial protection mechanism. A major challenge in most low middle income countries.

- Securing the support and cooperation of the country's ministry officials and healthcare community, and creating a true partnership
- Ability to bring surgical, anesthetic and other colleagues who are willing to commit to engaging in the country for over a significant period.
- An ability to adapt to a complex political, fiscal and social health landscape and to sustain capability and capacity in the long term. This requires good planning up front. .

One of the most promising strategies for transforming surgical care is to build partnerships between health care institutions in different countries. There are also associations that can be helpful in this work and are currently under-utilized, like the West African Surgeons Association.

About Dr. Richard Sullivan

Dr. Sullivan is a surgeon and Professor of Cancer Policy and Global Health at Kings College London, as well as the Director of the Kings Institute of Cancer Policy. He formerly served as Executive Director of Cancer Research UK. Dr. Sullivan has extensive experience in low- and middle-income countries, ranging from the D.R. Congo to India.

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